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| Concepts and skills students master:   * 2. Energy comes in many forms such as light, heat, sound, magnetic, chemical, and electrical | |
| **Evidence Outcomes**  **Students can:** | **21st Century Skills and Readiness Competencies** |
| 1. Identify and describe the variety of energy sources 2. Show that electricity in circuits requires a complete loop through   which current can pass   1. Describe the energy transformation   that takes place in electrical circuits where light, heat, sound, and magnetic effects are produced   1. Use multiple resources – including print, electronic, and human – to locate information about different sources of renewable and nonrenewable energy | **Inquiry Questions:**   1. How do we know that energy exists within a system such as in an electrical circuit? 2. How can heat be transferred from one object to another? |
| **Relevance and Application:**   1. There are multiple energy sources, both renewable and nonrenewable. 2. Energy can be used or stored. For example, it can be stored in a battery and then used when running a portable media player such as an iPod. 3. Transportation, manufacturing, and technology are driven by energy. |
| **Nature of Science:**   1. Ask testable questions about energy, make a falsifiable hypothesis and design an inquiry based method of finding the answer, collect data, and form a conclusion. 2. Understand that models are developed to explain and predict phenomena that cannot be directly observed. 3. Critically evaluate models of energy, identifying the strengths and weaknesses of the model in representing what happens in the real world. 4. Create plans to decrease electrical energy use for one week and evaluate the results. |

Taken from 4th grade